

GEOLOGICAL AND GEOTECHNICAL ENGINEERING SERVICES



Weir International, Inc.

Mining, Geology and Energy Consultants



Areas of Expertise:

- ◆ Blasting Studies
- ◆ Computer Modeling - Pillar Design/Ground Control
- ◆ Construction Engineering and Management
- ◆ Foundation Stability, Design, and Surface Structure Impacts
- ◆ Fracture Mapping and Characterization
- ◆ Litigation Support and Expert Witness Testimony
- ◆ Mine Failure Investigations
- ◆ Mine Interactions and Multiple-Seam Interaction Analyses
- ◆ Rock and Soil Exploration and Evaluation
- ◆ Rock Mechanics, Strata Control, including Abutment and Yield Pillar Design
- ◆ Site Characterization
- ◆ Stress Analyses
- ◆ Subsidence Engineering and Modeling, and Structure Evaluation
- ◆ Tunnel Inspection and Analysis
- ◆ Water Intrusion Analyses and Groundwater Investigations

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Geological Engineering

Changing regulatory environment, lower product quality, need to increase capacity, adverse mining conditions, and depleted low-cost reserves result in challenges that affect costs, productivity or compromise safety. WEIR's extensive knowledge of the character and make-up of rock bodies, state-of-the-art analytical and field tools, and extensive production experience help clients solve difficult ground problems at either the feasibility stage or mine operations stage. WEIR has provided effective geological engineering services throughout the life of the mine, from conceptual design through reclamation and closure.

Subsidence Engineering

Mine subsidence services provided by WEIR are primarily evaluation and minimization of subsidence associated with active underground mining, and analysis and mitigation of subsidence associated with abandoned mines. Active mine subsidence prediction is undertaken by WEIR utilizing complementary modeling programs. The subsidence analysis is commonly conducted in conjunction with the pillar design and strata control. WEIR also provides structure evaluation services before and after subsidence has occurred.



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